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TESTING FOR PHONY PEACH DISEASE

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A simple, rapid chemical test can be made in the field or laboratory to confirm phony, a virus disease of peach (1). The test reagent is prepared by acidulating **100** cc of absolute methyl alcohol with 15 to 20 drops of concentrated, chemically pure hydrochloric **acid**.

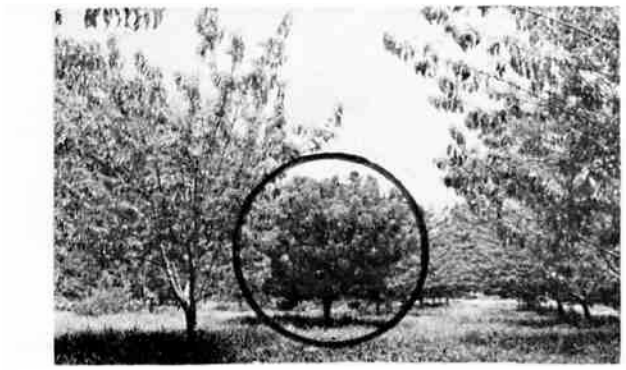

Fig. 1. Phony tree in background.

Fig. 2. Obtaining root sample.

Steps used in testing are described below:

Step No. 1. — Specific symptoms are present in trees affected by this virus and may be used in determining whether a tree should be tested. These symptoms are short internodes, rather profuse lateral branches, and flattened dark green leaves, giving appearance of compact, dwarfed growth with luxuriant foliage (Fig. 1).

Step No. 2. — Obtain a suitable unblemished root from each of three sides of the suspect tree (Fig. 2). These root samples should be at least 1/2 in. in diameter and 6 to 8 in. long.

Fig. 3 - Assembled testing materials.

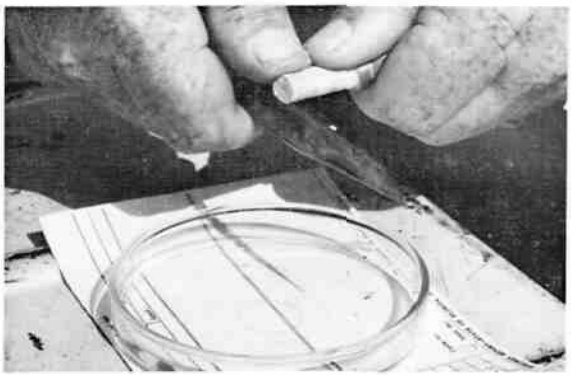

Fig. 4 - Cutting root section.

Step No. 3. — Assemble materials to be used for test: Testing reagent, petri-dish or another container, a sharp knife or clippers, and 3 sections of peach root (Fig. 3).

Step No. 4. - Pour enough testing reagent into petridish to completely immerse root sections. Peel back bark from one end of root to be tested. Cut 5 root sections from unblemished area 0.5 to 1 mm thick (Fig. 4). Place root sections into testing reagent.

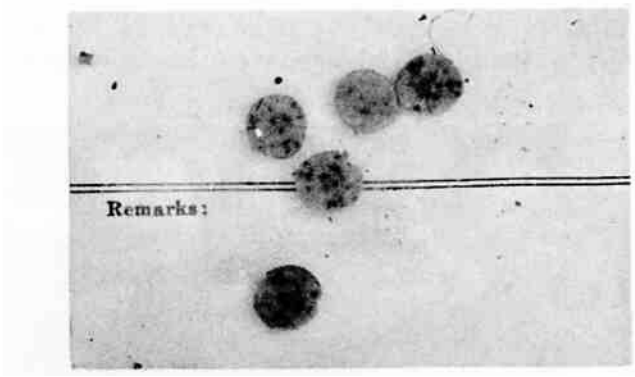

Fig. 5. Positive test.

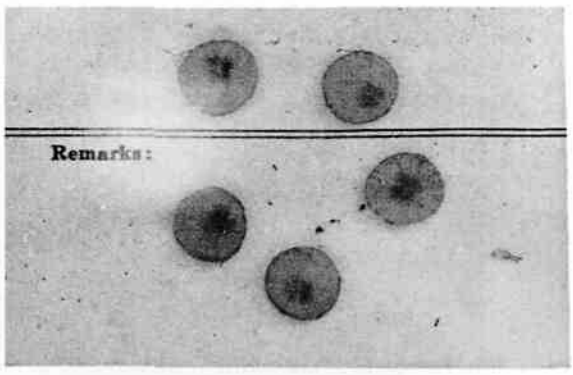

Fig. 6. Negative test.

Step No. 5.— When phony is present, brown to purple spots will appear in wood in 3 to 5 minutes after root section is placed in testing reagent (Fig. 5).

Step No. 6.— When phony is not present, the wood will turn slightly purple as a reaction to testing reagent, but spots should not be present (Fig. 6). Care should be taken to avoid using sections where defects are present in the wood, as they will show up as purple spots.

Trees that have had phony peach virus for a year or more may have brown streaking present in the trunk and limbs.

Literature Cited

(1) Hutchins, L. M. 1933. Identification and control of the phony disease of the peach. Georgia Office State Ent. Bull. 78. Cited in Lee H. Hutchin: L. C. Cochran, and William F. Turner. Phony. In USDA. 1951. Virus diseases and other disorders with virus like symptoms of stone fruits in North America. Agr. Handbook 10. U. S. Govt. Printing Office, Washington, D. C.